REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow.

Rejection of Claim 2 Under 35 USC § 102(b)

The examiner has rejected claim 2 as allegedly anticipated over Toyosaki et al. Specifically, the examiner contends that Toyosaki teaches a strain of bacteria that anticipates the strain of bacteria claimed in claim 2 of the present invention. Applicants respectfully traverse the rejection.

An anticipating reference must describe each and each element of the claimed invention. A *prima facie* case of anticipation can be established by showing that the claimed invention is identical or substantially identical to the claimed invention or is produced by identical or substantially identical processes. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). A prima facie case can be rebutted by showing that the prior art product is not necessarily the same as the claimed invention. *Id.* at 1255.

Applicants respectfully submit that the examiner has failed to make a prima facie case of anticipation. The examiner has not shown that BC-Y058 is identical or substantially identical to the bacterial strains taught by Toyosaki nor has the examiner shown that BC-Y058 is isolated by identical or substantially identical processes. Even if the examiner did make a prima facie showing of anticipation, the teachings of Toyosaki do not necessarily teach *Acetobacter* sp. BC-Y058 ("BC-Y058") as claimed in claim 2.

Toyosaki teaches a strain of *Acetobacter* characterized as a non-motile, non-spore forming, Gram-negative rod referred to as *Acetobacter* strain BPR 2001 ("BPR 2001"). *See* page 1500, right column, second paragraph. The strain produced acetic acid from ethanol and oxidized acetate as lactate similar to type strains of *Acetobacter*. *See id.* Toyosaki further explains that the details of the taxonomical classification will be discussed in a following paper. *See* page 1502, left column, second full paragraph. In addition to this limited

characterization, the strain is characterized as a strain producing cellulose. *See* page 1500, right column, second paragraph.

Based on this limited characterization of BPR 2001, the strain cannot anticipate BC-Y058. A number of bacterial strains are non-motile, non-spore forming, Gram-negative rods that produce acetic acid from ethanol and oxidize acetate as lactate. BPR 2001 is further characterized as producing cellulose, however, Applicants' own specification teaches that different strains of *Acetobacter* may convert glucose into cellulose. *See* Paragraphs [0030] and [0035]. Based on the limited description, Toyosaki's teaching of BPR 2001 could be any one of a number of strains of *Acetobacter*. Thus, Toyosaki does not necessarily anticipate the specific *Acetobacter* microorganism claimed in claim 2. In addition, applicants used 16s rRNA DNA sequence analysis to confirm that BC-Y058 was indeed a novel microorganism further supporting the novelty of BC-Y058. *See* Paragraph [0246].

Furthermore, BPR 2001 and BC-Y058 were not obtained using identical or substantially identical processes. Toyosaki obtained samples from over 500 locations throughout Japan. *See* page 1499, left column, last paragraph. Such samples came from fruits, nuts, sugar cane, flowers, and soil. *See* page 1499, Table II. BPR 2001 was isolated from a black cherry sample. *See* page 1500, left column, first paragraph. Toyosaki teaches culture and isolation of the samples based on varying cultures techniques, such as agar plates and shaking in flasks. *See* page 1498, right column. In addition, Toyosaki teaches the use of varying culture media, such as YE medium, CLS-Fru medium, and BSH medium. *See id.*

By contrast, the *Acetobacter* strain of the immediate invention, BC-Y058, was isolated from a sample taken from glucose factory sewage, rather than a black cherry. *See* Paragraph [0254]. BC-Y058 was cultured without shaking using media, such as MRS and BSH. *See* Paragraph [0254]. *See* Paragraph [0246].

The differences in the processes used to obtain BPR 2001 and BC-Y058 preclude a finding that BC-Y058 is anticipated over Toyosaki. First, the samples come from significantly different sources. BPR 2001 and BC-Y058 come from a black cherry sample and a glucose factory sewage sample, respectively. Toyosaki itself teaches that different

sources of samples provide bacterial strains with differing characteristics. For example, of the 353 samples tested from fruits, 31.7% contained cellulose producing bacteria. *See* page 1499, Table II. By contrast, of the 36 samples taken from flowers, only 5.6% contained cellulose containing bacteria. *See id.* Clearly, the source of the sample is significant in the process used to isolate the bacteria. Thus, a process using samples from black cherries does not necessarily lead to the isolation of the same bacterial strain as a process using samples from glucose factory sewage.

Second, the BPR 2001 was shaken in culture using YE, CLS-Fru, and BSH medium media, while BC-Y058 was not shaken during culture using MRS and BSH medium. Toyosaki teaches that shaking can produce different levels of cellulose production. *See* page 1500, column 1, first paragraph and page 1502, column 1, second full paragraph. Toyosaki further teaches that the media can influence cellulose production characteristics. *See* page 1502, column 1, first full paragraph. Thus, Toyosaki itself teaches that different culture conditions lead to different physiological bacterial characteristics. Therefore, it is improper to consider a bacterial strain exhibiting certain physiological characteristics anticipated by a bacterial strain displaying similar characteristics but obtained using a different process. Strains of *Acetobacter* that produce cellulose isolated using different processes are not necessarily identical based on the teachings of the prior art.

In summary, one of skill in the art would not consider the BC-Y058 to be identical or substantially identical to BPR 2001. Any alleged shared characteristics of the species of bacteria are common to large numbers of bacteria. Furthermore, applicants confirmed the novelty of BC-Y058 using both the phenotype and 16s rRNA DNA sequence analysis. *See* Paragraph [0246]. The processes used to obtain the bacteria also differ substantially. Different sample sources, culture conditions, and culture media were used. Toyosaki itself teaches that such differences significantly affect the strains of bacteria isolated and the characteristics of the bacterial strains isolated. Thus, BPR 2001 does not necessarily anticipate claim 2 of the immediate invention.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application is respectfully requested.

Respectfully submitted,

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FOLEY & LARDNER
Washington Harbour
3000 K Street, N.W., Suite 500
Washington, D.C. 20007-5143
Telephone: (202) 672-5404
Facsimile: (202) 672-5399

Stephen A. Bent
Attorney for Applicant
Registration No. 29,768

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